Algebraic Concepts Name _____
Lesson 21: Inequality Relations
Math for Standards Date _____

An inequality shows a relationship between values using the signs:

Rewrite the relation words then translate into _____.

Identify the _____ you choose to use.

Inequalities can be solved the same as an _____: get the variable

by _____.

You can check your answer by _____ a value that satisfies the

final inequality.

You *must* _____ the sign when you multiply or divide by a negative.

Solutions can be graphed on a _____.

There are an _____of solutions to most inequalities.

Make sure you are checking the _____ to see if they are to be included or not.

Example 1: To vote in the U.S., a citizen must be 18 years of age or older. Write an inequality that describes the age in years of voters in the U.S. Then graph the solution on a number line.

Example 2: A car rental company charges $49 per day plus $0.35 per mile driven. If Matt Mitarnowski rents a car for one day, what distance can he drive and keep his total rental charge to a maximum of $80?

Example 3: Fuzzy Jeff wants to read a 150-page book over 5 days. He plans to read 30 pages each day. However, on the first day, he reads 38 pages. What is the least number of pages Jeff must average for the next 4 days to reach his goal?

Example 4: Solve and graph on a number line.

a. $3x + 7 \geq 25$

b. $12 > -5y - 8$